

Title (en)

STEEL PLATE COOLING SYSTEM AND STEEL PLATE COOLING METHOD

Title (de)

STAHLPLATTENKÜHLUNGSSYSTEM UND STAHLPLATTENKÜHLUNGSVERFAHREN

Title (fr)

SYSTÈME DE REFROIDISSEMENT DE PLAQUE D'ACIER ET PROCÉDÉ DE REFROIDISSEMENT DE PLAQUE D'ACIER

Publication

**EP 2540407 A4 20131113 (EN)**

Application

**EP 11809748 A 20110722**

Priority

- JP 2010234715 A 20101019
- JP 2010164522 A 20100722
- JP 2011066742 W 20110722

Abstract (en)

[origin: EP2540407A1] Disclosed is a steel plate cooling system including a plurality of constraining roll pairs that allows a steel plate to pass restrictively therebetween; and an upper cooling apparatus and a lower cooling apparatus that are arranged between the constraining roll pairs so as to be opposed to each other with the steel plate interposed therebetween and have a plurality of spray nozzle rows. The plurality of spray nozzle rows is formed in a plate passing direction of the steel plate, and each of the spray nozzle rows has a plurality of identical spray nozzles lined up in a width direction of the steel plate. When viewed in the plate passing direction, the spray nozzle rows are each classified into an upstream spray nozzle row group located on a relative upstream side and a downstream spray nozzle row group located on a relative downstream side. A number of spray nozzles that belong to the upstream spray nozzle row group is smaller than a number of spray nozzles that belong to the downstream spray nozzle row group.

IPC 8 full level

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CPC (source: EP KR)

**B21B 45/02** (2013.01 - KR); **B21B 45/0233** (2013.01 - EP); **B21B 45/0218** (2013.01 - EP)

Citation (search report)

- [I] GB 2062520 A 19810528 - SUMITOMO METAL IND, et al
- See references of WO 2012011578A1

Cited by

CN114026259A; US2022251677A1; US11639537B2; EP2777836A1; EP3653312A4; US11413670B2; US10722929B2; US11084076B2

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JP WO2012011578 A1 20130909; KR 101266736 B1 20130528; KR 20120120972 A 20121102; WO 2012011578 A1 20120126

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